

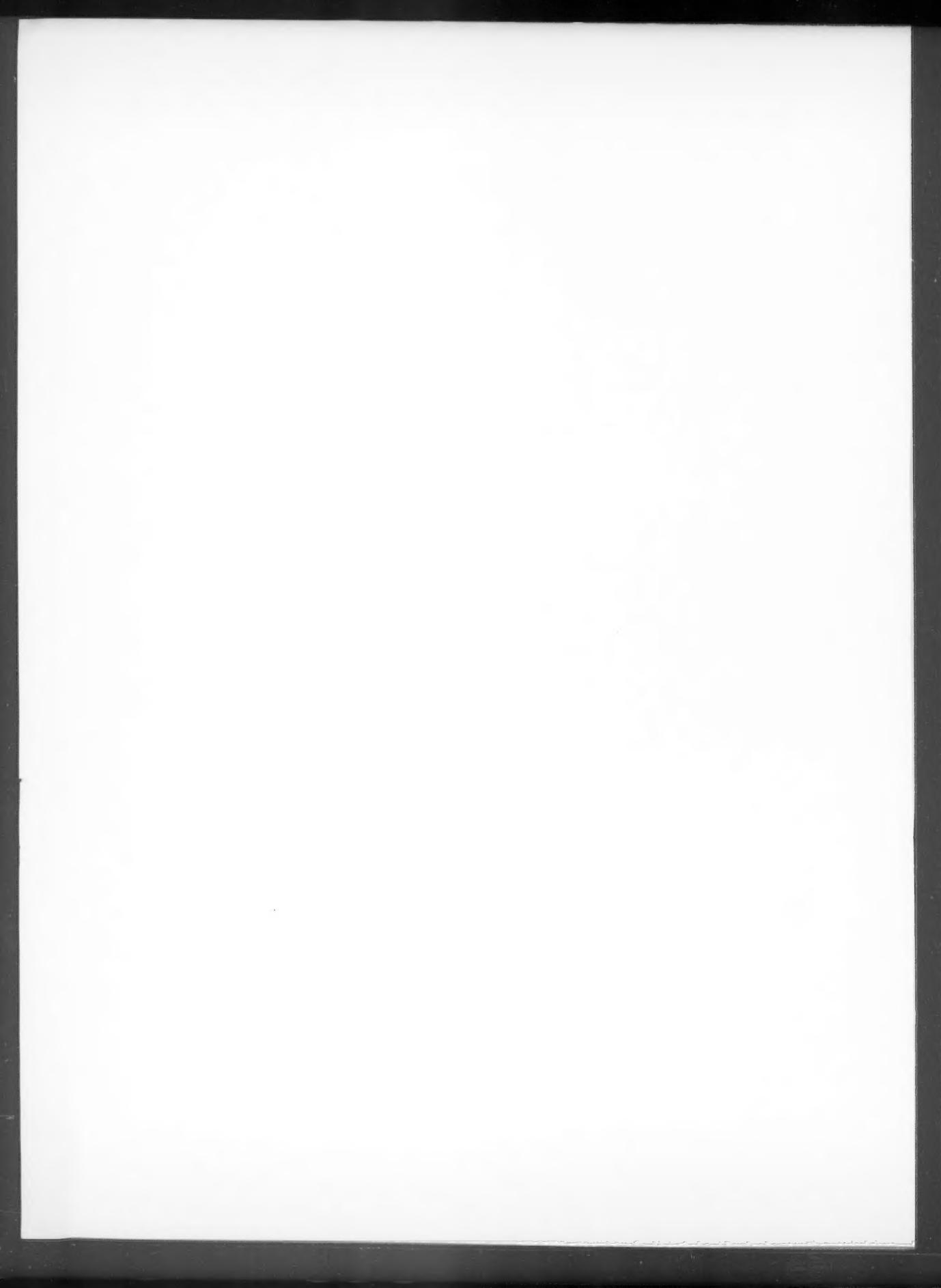
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0110	Announcements, news, and organizational activities	0380	General theory of scattering
0130	Physics literature and publications	0400	RELATIVITY AND GRAVITATION
0130B	<i>Publications of lectures (advanced institutes, summer schools, etc.)</i>	0420	General relativity
0130C	<i>Conference proceedings</i>	0430	Gravitational waves and radiation: theory
0130E	<i>Monographs, and collections</i>	0440	Continuous media; electromagnetic and other mixed gravitational systems
0130K	<i>Handbooks and dictionaries</i>	0450	Unified field theories and other theories of gravitation
0130L	<i>Collections of physical data, tables</i>	0460	Quantum theory of gravitation
0130N	<i>Textbooks</i>	0465	Supergravity
0130Q	<i>Reports, dissertations, theses</i>	0480	Experimental tests of general relativity and observations of gravitational radiation
0130R	<i>Reviews and tutorial papers; resource letters</i>	0485	Intermediate range forces
0130T	<i>Bibliographies</i>	0490	Other topics in relativity and gravitation
0140	Education	0500	STATISTICAL PHYSICS AND THERMODYNAMICS
0150	Educational aids	0520	Statistical mechanics
0155	General physics	0530	Quantum statistical mechanics
0160	Biographical, historical, and personal notes	0530L	<i>Anyons and parastatistics</i>
0165	History of science	0540	Fluctuation phenomena, random processes, and Brownian motion
0170	Philosophy of science	0545	Theory and models of chaotic systems
0175	Science and society	0550	Lattice theory and statistics; Ising problems
0190	Other topics of general interest	0560	Transport processes: theory
0200	MATHEMATICAL METHODS IN PHYSICS	0570	Thermodynamics
0210	Algebra, set theory, and graph theory	0590	Other topics in statistical physics and thermodynamics
0220	Group theory	0600	MEASUREMENT SCIENCE, GENERAL LABORATORY TECHNIQUES, AND INSTRUMENTATION SYSTEMS
0230	Function theory, analysis	0620	Metrology
0240	Geometry, differential geometry, and topology	0620D	<i>Measurement and error theory</i>
0250	Probability theory, stochastic processes, and statistics	0620F	<i>Units</i>
0260	Numerical approximation and analysis	0620H	<i>Measurement standards and calibration</i>
0270	Computational techniques	0620J	<i>Determination of fundamental constants</i>
0290	Other topics in mathematical methods in physics	0630	Measurement of basic variables
0300	CLASSICAL AND QUANTUM PHYSICS; MECHANICS AND FIELDS	0630C	<i>Spatial variables measurement</i>
0320	Classical mechanics of discrete systems: general mathematical aspects	0630E	<i>Mass and density measurement</i>
0330	Special relativity	0630F	<i>Time and frequency measurement</i>
0340	Classical mechanics of continuous media: general mathematical aspects	0630G	<i>Velocity, acceleration and rotation measurement</i>
0340D	<i>Mathematical theory of elasticity</i>	0630L	<i>Measurement of basic electromagnetic variables</i>
0340G	<i>Fluid dynamics: general mathematical aspects</i>	0630N	<i>Pressure measurement</i>
0340K	<i>Waves and wave propagation: general mathematical aspects</i>	0650	Data handling and computation
0350	Classical field theory	0660	Laboratory techniques
		0670	General instrumentation
		0690	Other topics in measurement science, general laboratory techniques, and instrumentation systems

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0700	SPECIFIC INSTRUMENTATION AND TECHNIQUES OF GENERAL USE IN PHYSICS	1225	<i>electrodynamics</i> Models for gravitational interactions
0710	Mechanical instruments and measurement methods	1230	Models of weak interactions
0720	Thermal instruments and techniques	1235	Composite models of particles
0720D	<i>Thermometry</i>	1235C	<i>General properties of quantum chromodynamics (dynamics, confinement, etc.)</i>
0720F	<i>Calorimetry</i>	1235E	<i>Applications of quantum chromodynamics to particle properties and reactions</i>
0720H	<i>Furnaces</i>	1235H	<i>Phenomenological composite models of particle structure and reactions (partons, bags, etc.)</i>
0720K	<i>High-temperature techniques and instrumentation; pyrometry</i>	1235K	<i>Other composite models</i>
0720M	<i>Cryogenics</i>	1240	Models of strong interactions
0725	Hygrometry	1240E	<i>Statistical models</i>
0730	Vacuum production and techniques	1240F	<i>Bootstrap models</i>
0730C	<i>Vacuum pumps and pumping techniques</i>	1240H	<i>Duality and dual models</i>
0730D	<i>Vacuum meters and measuring techniques</i>	1240K	<i>Hadron classification schemes</i>
0735	High pressure production and techniques	1240M	<i>Complex angular momentum plane; Regge poles and cuts (Reggeons)</i>
0750	Electrical instruments and techniques	1240P	<i>Absorptive, optical, and eikonal models</i>
0755	Magnetic instruments and techniques	1240Q	<i>Potential models</i>
0758	Magnetic resonance spectrometers, auxiliary instruments and techniques	1240R	<i>Peripheral models (one or more particle exchange)</i>
0760	Optical instruments and techniques	1240S	<i>Multiperipheral and multi-Regge models</i>
0760D	<i>Photometry and radiometry</i>	1240V	<i>Vector-meson dominance</i>
0760F	<i>Polarimetry and ellipsometry</i>	1270	Hadron mass formulas
0760H	<i>Refractometry and reflectometry</i>	1290	Miscellaneous theoretical ideas and models
0760L	<i>Interferometry</i>	1300	SPECIFIC REACTIONS AND PHENOMENOLOGY
0760P	<i>Optical microscopy</i>	1310	Weak and electromagnetic interactions of leptons
0762	Detection of radiation (bolometers, photoelectric cells, i.r. and submillimetre waves detection)	1315	Neutrino interactions
0765	Optical spectroscopy and spectrometers	1320	Leptonic and semileptonic decays of mesons
0765E	<i>UV and visible spectroscopy and spectrometers</i>	1325	Hadronic decays of mesons
0765G	<i>IR spectroscopy and spectrometers</i>	1330	Decays of baryons
0768	Photography, photographic instruments and techniques	1335	Decays of leptons
0775	Mass spectrometers and mass spectrometry techniques	1338	Decays of intermediate bosons
0777	Particle beam production and handling; targets	1340	Electromagnetic processes and properties
0780	Electron and ion microscopes and techniques	1340D	<i>Electromagnetic mass differences</i>
0785	X-ray, gamma-ray instruments and techniques	1340F	<i>Electromagnetic form factors; electric and magnetic moments; structure functions</i>
0790	Other topics in specialized instrumentation	1340H	<i>Electromagnetic decays</i>
1000	THE PHYSICS OF ELEMENTARY PARTICLES AND FIELDS	1340K	<i>Electromagnetic corrections to strong and weak interaction processes</i>
1100	GENERAL THEORY OF FIELDS AND PARTICLES	1360	Photon and charged-lepton interactions with hadrons
1110	Field theory	1360F	<i>Elastic and Compton scattering</i>
1117	Theories of strings and other extended objects	1360H	<i>Total and inclusive cross sections</i>
1120	S-matrix theory	1360K	<i>Meson production</i>
1130	Symmetry and conservation laws	1360M	<i>Meson-resonance production</i>
1140	Currents and their properties	1360P	<i>Baryon and baryon resonance production</i>
1150	Dispersion relations and sum rules	1365	Hadron production by electron-positron collisions
1160	Complex angular momentum; Regge formalism	1375	Hadron-induced low- and intermediate-energy reactions and scattering, energy $\leq 10$ GeV
1180	Relativistic scattering theory	1375C	<i>Nucleon-nucleon interactions, including antinucleon, deuteron, etc. (energy <math>\leq 10</math> GeV)</i>
1190	Other topics in general field and particle theory	1375E	<i>Hyperon-nucleon interactions (energy <math>\leq 10</math> GeV)</i>
1200	SPECIFIC THEORIES AND INTERACTION MODELS; PARTICLE SYSTEMATICS	1375G	<i>Pion-baryon interactions (energy <math>\leq 10</math> GeV)</i>
1210	Unified field theories and models		
1220	Models of electromagnetic interaction		
1220D	<i>Specific calculations and limits of quantum electrodynamics</i>		
1220F	<i>Experimental tests of quantum</i>		

1375J	<i>Kaon-baryon interactions (energy <math>\leq 10</math> GeV)</i>	2410	Nuclear reaction and scattering models and methods
1375L	<i>Meson-meson interactions (energy <math>\leq 10</math> GeV)</i>	2410H	<i>Optical and diffraction models</i>
1380	Photon-photon interactions and scattering	2430	Resonance reactions and scattering
1385	Hadron-induced high- and super-high-energy interactions, energy $> 10$ GeV	2450	Direct reactions
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1385F	<i>Inelastic scattering, two-particle final states (energy <math>&gt; 10</math> GeV)</i>	2470	Polarization in reactions and scattering
1385H	<i>Inelastic scattering, many-particle final state (energy <math>&gt; 10</math> GeV)</i>	2475	General properties of fission
1385K	<i>Inclusive reactions, including total cross sections (energy <math>&gt; 10</math> GeV)</i>	2490	Other topics in nuclear reactions and scattering, general
1385M	<i>Cosmic ray interactions</i>	2500	NUCLEAR REACTIONS AND SCATTERING: SPECIFIC REACTIONS
1387	Jets in large- $Q^2$ interactions	2510	Nuclear reactions and scattering involving few-nucleon systems
1388	Polarization in interactions and scattering	2520	Photonuclear reactions and photon scattering
1390	Other topics in specific reactions and phenomenology of elementary particles	2530	Lepton-induced reactions and scattering
1400	PROPERTIES OF SPECIFIC PARTICLES AND RESONANCES	2540	Nucleon-induced reactions and scattering
1420	Baryons and baryon resonances	2550	$^2\text{He}$ - and $^3\text{He}$ -induced reactions and scattering
1440	Mesons and meson resonances	2560	$^3\text{He}$ - and $^4\text{He}$ -induced reactions and scattering
1460	Leptons	2570	Heavy ion induced reactions and scattering
1480	Other and hypothetical particles	2580	Meson- and hyperon-induced reactions and scattering
2000	NUCLEAR PHYSICS	2585	Fission reactions
2100	NUCLEAR STRUCTURE	2588	Fusion reactions
2110	General and average properties of nuclei; properties of nuclear energy levels	2590	Other topics in nuclear reactions and scattering: specific reactions
2110D	<i>Binding energy and masses</i>	2700	PROPERTIES OF SPECIFIC NUCLEI LISTED BY MASS RANGES
2110F	<i>Shape, charge, radius, form factors and structure functions</i>	2710	$A \leq 5$
2110H	<i>Spin, parity, and isobaric spin</i>	2720	$6 \leq A \leq 19$
2110J	<i>Spectroscopic factors</i>	2730	$20 \leq A \leq 38$
2110K	<i>Electromagnetic moments</i>	2740	$39 \leq A \leq 58$
2110M	<i>Level density and structure</i>	2750	$59 \leq A \leq 89$
2130	Nuclear forces	2760	$90 \leq A \leq 149$
2140	Few-nucleon systems	2770	$150 \leq A \leq 189$
2160	Nuclear-structure models and methods	2780	$190 \leq A \leq 219$
2160C	<i>Shell model</i>	2790	$220 \leq A$
2160E	<i>Collective models</i>	2800	NUCLEAR ENGINEERING AND NUCLEAR POWER STUDIES
2160F	<i>Models based on group theory</i>	2820	Neutron physics
2160G	<i>Cluster models</i>	2841	Fission reactor theory and design
2160J	<i>Hartree-Fock and random-phase approximations</i>	2842	Fission reactor materials
2165	Nuclear matter	2842H	<i>Fuel preparation and reprocessing</i>
2180	Hypenuclci	2843	Fission reactor operation
2190	Other topics in nuclear structure	2844	Fission reactor protection systems, safety and accidents
2300	RADIOACTIVITY AND ELECTROMAGNETIC TRANSITIONS	2846	Nuclear materials: safety aspects
2320	Electromagnetic transitions	2846C	<i>Safeguards</i>
2320C	<i>Lifetimes and transition probabilities</i>	2846E	<i>Criticality safety</i>
2320N	<i>Internal conversion and extranuclear effects</i>	2846G	<i>Packaging and transportation</i>
2340	Beta decay; electron and muon capture	2847	Fission reactor decommissioning
2360	Alpha decay	2850	Fission reactor types and applications
2380	Nuclear decays by heavy ion emission	2852	Fusion reactors
2390	Other topics in nuclear decay and radioactivity	2858	Integrated reactor systems
2400	NUCLEAR REACTIONS AND SCATTERING: GENERAL	2870	Nuclear explosions
		2875	Radioactive waste, transportation, disposal, storage, treatment
		2880	Radiation technology, including shielding
		2890	Other topics in nuclear engineering and nuclear power studies

2900	EXPERIMENTAL METHODS AND INSTRUMENTATION FOR ELEMENTARY-PARTICLE AND NUCLEAR PHYSICS	3250	Fluorescence, phosphorescence; radiationless transitions
2910	Preacceleration (injection)	3250F	<i>Fluorescence, phosphorescence</i>
2915	Electrostatic and linear particle accelerators	3250H	<i>Radiationless transitions</i>
2920	Cyclic accelerators and storage facilities	3260	Magneto-optical and electro-optical spectra
2925	Particle sources and targets, preparation and technology	3260S	<i>Stark effect</i>
2930	Radiation spectrometers and spectroscopic techniques	3260V	<i>Zeeman effect</i>
2940	Radiation detectors	3270	Spectral line shapes and intensities
2940W	<i>Solid-state nuclear track detectors</i>	3280	Photon interactions with atoms
2960	Counting circuits and nuclear electronics	3280B	<i>Level crossing, optical pumping, population inversion, stimulated emission</i>
2970	Radiation measurement, detection and counting	3280D	<i>Autoionization</i>
2975	Polarization analysis	3280F	<i>Photoionization, photodetachment, photoelectron spectra</i>
2980	Nuclear information processing	3280H	<i>Auger effect and inner-shell ionization</i>
2990	Other topics in high-energy and nuclear experimental methods and instrumentation	3280K	<i>Multiphoton processes</i>
3280P	<i>Optical cooling of atoms; trapping</i>		
3290	Other topics in atomic spectra and interactions with photons	3300	MOLECULAR SPECTRA AND INTERACTIONS WITH PHOTONS
3000	ATOMIC AND MOLECULAR PHYSICS	3310	Calculation of molecular spectra
3100	THEORY OF ATOMS AND MOLECULES	3320	Molecular spectra grouped by wavelength ranges
3110	General theory of structure, transitions and chemical binding	3320B	<i>Radiofrequency and microwave spectra</i>
3115	General mathematical and computational developments	3320E	<i>Infrared spectra</i>
3120	Specific calculations and results	3320F	<i>Raman and Rayleigh spectra</i>
3120D	<i>Complete ab initio calculations (exact or nearly exact calculations on small species)</i>	3320K	<i>Visible spectra</i>
3120E	<i>Ab initio LCAO and CO SCF calculations</i>	3320L	<i>Ultraviolet spectra</i>
3120G	<i>Other accurate or nearly ab initio calculations</i>	3320N	<i>Vacuum ultraviolet spectra</i>
3120H	<i>Xalpha methods</i>	3320R	<i>X-ray spectra</i>
3120J	<i>Local density approximation</i>	3325	Nuclear magnetic resonance and relaxation; nuclear quadrupole resonance (NQR)
3120L	<i>Other statistical model calculations (Thomas-Fermi and Thomas-Fermi-Dirac models)</i>	3330	Electron paramagnetic resonance and relaxation
3120N	<i>Semi-empirical NDO calculations (CNDO, INDO, MINDO, PC1LO methods, etc.)</i>	3335	Double resonances and other multiple resonances
3120P	<i>Other semi-empirical calculations (Hückel, generalized Hückel, PPP methods, etc.)</i>	3335H	<i>MODR and PMDR (microwave optical double resonance and phosphorescence microwave double resonance)</i>
3120R	<i>Valence bond calculations (ab initio or not)</i>	3340	Mössbauer spectra
3120T	<i>Electron correlation and CI calculations</i>	3345	Magneto-optical and electro-optical effects; birefringence, dichroism and optical activity
3120W	<i>Empirical methods (nonquantum methods for conformations)</i>	3345B	<i>Zeeman and Stark effects</i>
3130	Electronic structure, corrections and effects of interactions	3345C	<i>Magnetic circular dichroism</i>
3130G	<i>Hyperfine int. actions and isotope effects</i>	3350	Fluorescence, phosphorescence; radiationless transitions (intersystem crossing, internal conversion)
3130J	<i>Radiative and relativistic effects</i>	3350D	<i>Fluorescence and phosphorescence spectra</i>
3130L	<i>Environmental and solvent effects</i>	3350H	<i>Radiationless transitions</i>
3130N	<i>Molecular solids</i>	3365	Photoelectron spectra
3150	Excited states	3370	Intensities and shapes of molecular spectral lines and bands
3190	Other topics in the theory of atoms and molecules	3380	Photon interactions with molecules
3200	ATOMIC SPECTRA AND INTERACTIONS WITH PHOTONS	3380B	<i>Level crossing, optical pumping, population inversion, stimulated emission</i>
3220	Atomic spectra grouped by wavelength ranges	3380E	<i>Autoionization, photoionization, and photodetachment</i>
3220D	<i>Radiofrequency and microwave spectra</i>	3380G	<i>Diffuse spectra; predissociation, photodissociation</i>
3220F	<i>Infrared and Raman spectra</i>	3380K	<i>Multiphoton processes</i>
3220J	<i>Visible and ultraviolet spectra</i>	3380P	<i>Optical cooling of molecules; trapping</i>
3220R	<i>X-ray spectra</i>	3390	Other topics in molecular spectra and
3240	Magnetic resonance spectra		

	interactions with photons		techniques
3400	ATOMIC AND MOLECULAR COLLISION PROCESSES AND INTERACTIONS	3580B	<i>Time-resolved measurements and techniques</i>
3410	General theories and models	3600	STUDIES OF SPECIAL ATOMS AND MOLECULES
3420	Interatomic and intermolecular potentials and forces	3610	Exotic atoms and molecules (containing mesons, muons, and other abnormal particles)
3425	Intramolecular energy transfer, intramolecular dynamics; dynamics of van der Waals molecules	3620	Macromolecules and polymer molecules
3430	Potential energy surfaces for collisions	3640	Atomic and molecular clusters
3440	Elastic scattering of atoms and molecules	3690	Other special atoms and molecules
3450	Inelastic scattering of atoms and molecules	4000	CLASSICAL AREAS OF PHENOMENOLOGY
3450E	<i>Rotational and vibrational energy transfer</i>	4100	ELECTRICITY AND MAGNETISM; FIELDS AND CHARGED PARTICLES
3450H	<i>Electronic excitation and ionization (inc. beam-foil excitation and ionization)</i>	4110	Classical electromagnetism
3450L	<i>Chemical reactions, energy disposal, and angular distribution, as studied by atomic and molecular beams</i>	4110D	<i>Electrostatics, magnetostatics</i>
3450R	<i>Laser-modified scattering</i>	4110F	<i>Steady-state electromagnetic fields; electromagnetic induction</i>
3470	Charge transfer	4110H	<i>Electromagnetic waves: theory</i>
3480	Electron scattering, electron spectra	4170	Particles in electromagnetic fields: classical aspects
3480B	<i>Elastic scattering of electrons by atoms and molecules</i>	4180	Particle beams and particle optics
3480D	<i>Atomic excitation and ionization by electron impact</i>	4180D	<i>Electron beams and electron optics</i>
3480G	<i>Molecular excitation, ionization, and dissociation by electron impact</i>	4180G	<i>Ion beams and ion optics</i>
3480Q	<i>Laser-modified scattering</i>	4190	Other topics in electricity and magnetism
3490	Other topics in atomic and molecular collision processes and interactions	4200	OPTICS
3500	PROPERTIES OF ATOMS AND MOLECULES; INSTRUMENTS AND TECHNIQUES	4210	Propagation and transmission in homogeneous media
3510	Atoms	4220	Propagation and transmission in inhomogeneous media
3510B	<i>Atomic masses, mass spectra, abundances, and isotopes</i>	4230	Optical information, image formation and analysis
3510D	<i>Electric and magnetic moments, polarizability</i>	4240	Holography
3510F	<i>Fine- and hyperfine-structure constants</i>	4250	Quantum optics
3510H	<i>Ionization potentials, electron affinities</i>	4252	Masers
3510W	<i>Weak interactions</i>	4255	Lasing processes
3520	Molecules	4255B	<i>General theory of lasing action</i>
3520B	<i>General molecular conformation and symmetry; stereochemistry</i>	4255D	<i>CO<sub>2</sub> lasers</i>
3520D	<i>Interatomic distances and angles</i>	4255F	<i>Inert gas lasers</i>
3520G	<i>Bond strengths, dissociation energies, hydrogen bonding</i>	4255G	<i>Excimer lasers</i>
3520J	<i>Barrier heights (internal rotation, inversion); rotational isomerism, conformational dynamics</i>	4255H	<i>Lasing action in other gas lasers</i>
3520M	<i>Electric and magnetic moments (and derivatives), polarizability, and magnetic susceptibility</i>	4255K	<i>Chemical lasers</i>
3520P	<i>Rotation, vibration, and vibration-rotation constants</i>	4255M	<i>Lasing action in liquids and organic dyes</i>
3520S	<i>Hyperfine and fine-structure constants</i>	4255N	<i>Fibre lasers and amplifiers</i>
3520V	<i>Ionization potentials, electron affinities, molecular core binding energy</i>	4255P	<i>Lasing action in semiconductors with junctions</i>
3520W	<i>Weak interactions</i>	4255Q	<i>Laser-active defect centres in solids</i>
3520X	<i>Mass spectra</i>	4255R	<i>Lasing action in other solids</i>
3520Y	<i>Correlation times in molecular dynamics</i>	4255T	<i>Free electron lasers</i>
3580	Atomic and molecular measurements and	4255V	<i>High energy lasing processes (e.g. gamma and X-ray lasers)</i>
		4260	Laser systems and laser beam applications
		4260B	<i>Design of specific laser systems</i>
		4260D	<i>Laser resonators and cavities</i>
		4260F	<i>Laser beam modulation, pulsing and switching; mode locking and tuning</i>
		4260H	<i>Laser beam characteristics and interactions</i>
		4260K	<i>Laser beam applications</i>
		4265	Nonlinear optics
		4265C	<i>Stimulated Raman scattering and spectra;</i>

	<i>CARS; stimulated Brillouin and stimulated Rayleigh scattering and spectra</i>	4390	Other topics in acoustics
4265F	<i>Phase conjugation</i>	4400	HEAT FLOW, THERMAL AND THERMODYNAMIC PROCESSES
4265G	<i>Optical transient phenomena, self-induced transparency, optical saturation and related effects</i>	4410	Heat conduction (models, phenomenological description)
4265J	<i>Beam trapping, self focusing, thermal blooming, and related effects</i>	4425	Convection
4265K	<i>Harmonic generation, frequency conversion, parametric oscillation and amplification</i>	4430	Heat transfer in inhomogeneous media and through interfaces
4265M	<i>Multiwave mixing</i>	4440	Heat radiation
4265P	<i>Optical bistability, multistability and switching</i>	4450	Thermal properties of matter (phenomenology)
4270	Optical materials	4460	Thermodynamic processes (phenomenology)
4270C	<i>Glass</i>	4490	Other topics in heat flow, thermal and thermodynamic processes
4270G	<i>Light-sensitive materials</i>		
4272	Optical sources and standards	4600	MECHANICS, ELASTICITY, RHEOLOGY
4278	Optical lens and mirror systems	4610	Mechanics of discrete systems
4278H	<i>Coatings</i>	4620	Continuum mechanics
4280	Optical devices, techniques and applications	4630	Mechanics of solids
4280B	<i>Spatial filters, zone plates</i>	4630C	<i>Elasticity</i>
4280C	<i>Spectral and other filters</i>	4630J	<i>Viscoelasticity, plasticity, viscoplasticity, creep, and stress relaxation</i>
4280D	<i>Monochromators</i>	4630L	<i>Buckling and instability</i>
4280E	<i>Shutters, windows, diaphragms, deflectors, choppers, and optical scanners</i>	4630M	<i>Vibrations, aeroelasticity, hydroelasticity, mechanical waves, and shocks</i>
4280F	<i>Gatings, echelles</i>	4630N	<i>Fracture mechanics, fatigue, and cracks</i>
4280K	<i>Optical beam modulators</i>	4630P	<i>Friction, wear, adherence, hardness, mechanical contacts</i>
4280L	<i>Optical waveguides and couplers</i>	4630R	<i>Measurement methods and techniques</i>
4280Q	<i>Image detectors, convertors, and intensifiers</i>	4660	Rheology of fluids and pastes
4280R	<i>Gradient-index (GRIN) devices</i>	4690	Other topics in mechanics, elasticity, and rheology
4280S	<i>Optical communications devices</i>		
4280W	<i>Ultrafast optical techniques</i>	4700	FLUID DYNAMICS
4281	Fibre optics and fibre waveguides	4710	General theory, simulation and other computational methods
4281B	<i>Fibre fabrication, cladding, splicing, joining</i>	4715	Laminar flows
4281C	<i>Fibre testing and measurement of fibre parameters</i>	4715C	<i>Laminar boundary layers</i>
4281H	<i>Gradient-index (GRIN) fibre devices and techniques</i>	4715F	<i>Stability of laminar flows</i>
4281M	<i>Fibre couplers and connectors</i>	4720	Hydrodynamic stability and instability
4281P	<i>Fibre optic sensors; fibre gyros</i>	4725	Turbulent flows, convection, and heat transfer
4281W	<i>Other fibre optical devices and techniques</i>	4725C	<i>Isotropic turbulence</i>
4282	Integrated optics	4725F	<i>Boundary layer and shear turbulence</i>
4285	Optical testing and workshop techniques	4725J	<i>Turbulent diffusion</i>
4290	Other topics in optics	4725M	<i>Noise (turbulence generated)</i>
		4725Q	<i>Convection and heat transfer</i>
		4725R	<i>Wakes</i>
4300	ACOUSTICS	4730	Rotational flow, vortices, buoyancy and other flows involving body forces
4320	General linear acoustics	4735	Waves
4325	Nonlinear acoustics and macrosonics	4740	Compressible flows; shock and detonation phenomena
4328	Aeroacoustics and atmospheric sound	4740D	<i>General subsonic flows</i>
4330	Underwater sound	4740H	<i>Transonic flows</i>
4335	Ultrasonics, quantum acoustics, and physical effects of sound	4740K	<i>Supersonic and hypersonic flows</i>
4340	Structural acoustics and vibration	4740N	<i>Shock-wave interactions</i>
4345	Statistical studies of acoustical response	4745	Rarefied gas dynamics
4350	Noise, its effects and control	4750	Non-Newtonian dynamics
4355	Architectural acoustics	4755	Nonhomogeneous flows
4360	Acoustic signal processing	4755B	<i>Cavitation</i>
4363	Acoustic holography	4755C	<i>Jets</i>
4370	Speech communication	4755E	<i>Nozzles</i>
4375	Music and musical instruments	4755H	<i>Stratified flows</i>
4385	Acoustical measurements and instrumentation		
4388	Transduction; devices for the generation and reproduction of sound		

		THERMAL AND MECHANICAL PROPERTIES	
4755K	<i>Multiphase flows</i>		
4755M	<i>Flow through porous media</i>		
4760	Flows in ducts, channels, and conduits		
4765	Magnetohydrodynamics and electrohydrodynamics	6100	STRUCTURE OF LIQUIDS AND SOLIDS; CRYSTALLOGRAPHY
4770	Reactive, radiative, or nonequilibrium flows	6110	X-ray determination of structures
4775	Relativistic fluid dynamics	6110D	<i>Theories of diffraction and scattering</i>
4780	Instrumentation for fluid dynamics	6110F	<i>Experimental diffraction and scattering techniques</i>
4790	Other topics in fluid dynamics	6110M	<i>Crystal structure solution and refinement techniques</i>
5000	<b>FLUIDS, PLASMAS AND ELECTRIC DISCHARGES</b>	6112	Neutron determination of structures
5100	<b>KINETIC AND TRANSPORT THEORY OF FLUIDS; PHYSICAL PROPERTIES OF GASES</b>	6112B	<i>Theories of diffraction and scattering</i>
5110	Kinetic and transport theory	6112E	<i>Neutron scattering techniques</i>
5120	Viscosity and diffusion: experimental	6112G	<i>Neutron diffraction techniques</i>
5130	Thermal properties of gases	6114	Electron determination of structures
5140	Acoustical properties of gases; ultrasonic relaxation	6114D	<i>Theories of diffraction and scattering</i>
5150	Electrical phenomena in gases	6114F	<i>Experimental diffraction and scattering</i>
5160	Magnetic phenomena in gases	6114H	<i>Low-energy electron diffraction (LEED) and reflection high-energy electron diffraction (RHEED)</i>
5170	Optical phenomena in gases	6114R	<i>Other electron diffraction and scattering techniques</i>
5190	Other topics in the physics of fluids	6116	Other determination of structures
5200	<b>THE PHYSICS OF PLASMAS AND ELECTRIC DISCHARGES</b>	6116D	<i>Electron microscopy determinations</i>
5220	Elementary processes in plasma	6116F	<i>Field-ion microscopy determinations; atom and ion scattering techniques</i>
5220F	<i>Electron collisions</i>	6116N	<i>EPR and NMR determinations</i>
5220H	<i>Atomic, molecular, ion and heavy particle collisions</i>	6116P	<i>Scanning tunnelling microscopy and related techniques</i>
5225	Plasma properties	6120	Classical, semiclassical, and quantum theories of liquid structure
5225F	<i>Transport properties</i>	6125	Studies of specific liquid structures
5225P	<i>Emission, absorption, and scattering of radiation</i>	6125M	<i>Liquid metals and liquid alloys</i>
5230	Plasma flow; magnetohydrodynamics	6130	Liquid crystals
5235	Waves, oscillations, and instabilities in plasma	6140	Amorphous and polymeric materials
5235R	<i>Plasma turbulence</i>	6140D	<i>Glasses</i>
5235T	<i>Shock waves</i>	6140K	<i>Polymers, elastomers, and plastics</i>
5240	Plasma interactions	6140M	<i>Quasicrystals</i>
5240D	<i>Electromagnetic wave propagation in plasma</i>	6150	Crystalline state
5240F	<i>Antennas in plasma; plasma-filled wave guides</i>	6150C	<i>Physics of crystal growth</i>
5240H	<i>Solid-state plasma interactions</i>	6150E	<i>Crystal symmetry; models and space groups, and crystalline systems and classes</i>
5240K	<i>Sheaths</i>	6150J	<i>Crystal morphology and orientation</i>
5240M	<i>Particle beam interactions in plasma</i>	6150K	<i>Crystallographic aspects of polymorphic and order-disorder transformations</i>
5250	Plasma production and heating	6150L	<i>Crystal binding</i>
5250J	<i>Plasma production and heating by laser beams</i>	6155	Specific structure of elements and alloys
5250L	<i>Plasma production and heating by shock waves and compression</i>	6155D	<i>Nonmetallic elements</i>
5255	Plasma equilibrium and confinement	6155F	<i>Metallic elements</i>
5260	Relativistic plasma	6155H	<i>Alloys</i>
5265	Plasma simulation	6160	Specific structure of inorganic compounds
5270	Plasma diagnostic techniques and instrumentation	6165	Specific structure of organic compounds
5275	Plasma devices and applications	6170	Defects in crystals
5280	Electric discharges	6170A	<i>Annealing processes</i>
5290	Other topics in plasma physics and electric discharges	6170B	<i>Interstitials and vacancies</i>
6000	<b>CONDENSED MATTER: STRUCTURE,</b>	6170D	<i>Colour centres</i>
		6170E	<i>Other point defects</i>
		6170G	<i>Dislocations: theory</i>
		6170J	<i>Etch pits, decoration, transmission electronmicroscopy and other direct observations of dislocations</i>

6170L	<i>Slip, creep, internal friction and other indirect evidence of dislocations</i>	6400	<b>EQUATIONS OF STATE, PHASE EQUILIBRIA, AND PHASE TRANSITIONS</b>
6170N	<i>Grain and twin boundaries</i>	6410	General theory of equations of state and phase equilibria
6170P	<i>Stacking faults, stacking fault tetrahedra and other planar or extended defects</i>	6430	Equations of state of specific substances
6170Q	<i>Inclusions and voids</i>	6460	General studies of phase transitions
6170R	<i>Crystal impurities: general</i>	6470	Phase equilibria, phase transitions, and critical points
6170T	<i>Doping and implantation of impurities</i>	6470D	<i>Solid-liquid transitions</i>
6170W	<i>Impurity concentration, distribution, and gradients</i>	6470F	<i>Liquid-vapour transitions</i>
6170Y	<i>Interaction between different crystal structure defects</i>	6470H	<i>Solid-vapour transitions</i>
6180	Radiation damage and other irradiation effects	6470J	<i>Liquid-liquid transitions</i>
6180B	<i>Ultraviolet, visible and infrared radiation</i>	6470K	<i>Solid-solid transitions</i>
6180C	<i>X-rays</i>	6470M	<i>Transitions in liquid crystals</i>
6180E	<i>Gamma rays</i>	6470P	<i>Glass transitions</i>
6180F	<i>Electrons and positrons</i>	6470R	<i>Commensurate-incommensurate transitions</i>
6180H	<i>Neutrons</i>	6475	Solubility, segregation, and mixing
6180J	<i>Ions</i>	6480	Other phase properties of systems
6180L	<i>Atoms and molecules</i>	6490	Other topics in equations of state, phase equilibria, and phase transitions
6180M	<i>Channelling, blocking and energy loss of particles</i>	6500	<b>THERMAL PROPERTIES OF CONDENSED MATTER</b>
6190	Other topics in structure of liquids and solids	6520	Heat capacities of liquids
6200	<b>MECHANICAL AND ACOUSTIC PROPERTIES OF CONDENSED MATTER</b>	6540	Heat capacities of solids
6210	Mechanical properties of liquids	6550	Thermodynamic properties and entropy
6220	Mechanical properties of solids (related to microscopic structure)	6570	Thermal expansion and thermomechanical effects
6220D	<i>Elasticity, elastic constants</i>	6590	Other topics in thermal properties of condensed matter
6220F	<i>Deformation and plasticity</i>	6600	<b>TRANSPORT PROPERTIES OF CONDENSED MATTER (NONELECTRONIC)</b>
6220H	<i>Creep</i>	6610	Diffusion and ionic conduction in liquids
6220M	<i>Fatigue, brittleness, fracture, and cracks</i>	6620	Diffusive momentum transport
6220P	<i>Tribology</i>	6630	Diffusion in solids
6230	Mechanical and elastic waves	6630D	<i>Theory of diffusion and ionic conduction in solids</i>
6240	Anelasticity, internal friction and mechanical resonances	6630F	<i>Self-diffusion in metals, semimetals, and alloys</i>
6250	High-pressure and shock-wave effects in solids	6630H	<i>Self-diffusion and ionic conduction in nonmetals</i>
6260	Acoustic properties of liquids	6630J	<i>Diffusion, migration, and displacement of impurities</i>
6265	Acoustic properties of solids	6630L	<i>Diffusion, migration, and displacement of other defects</i>
6280	Ultrasonic relaxation	6630N	<i>Chemical interdiffusion</i>
6290	Other topics in mechanical and acoustical properties of condensed matter	6630Q	<i>Electromigration</i>
6300	<b>LATTICE DYNAMICS AND CRYSTAL STATISTICS</b>	6660	Thermal conduction in nonmetallic liquids
6310	General theory	6670	Nonelectronic thermal conduction and heat-pulse propagation in nonmetallic solids
6320	Phonons and vibrations in crystal lattices	6690	Other topics in nonelectronic transport properties
6320D	<i>Phonon states and bands, normal modes, and phonon dispersion</i>	6700	<b>QUANTUM FLUIDS AND SOLIDS; LIQUID AND SOLID HELIUM</b>
6320H	<i>Phonon-phonon interactions</i>	6720	Quantum effects on the structure and dynamics of nondegenerate fluids
6320K	<i>Phonon-electron interactions</i>	6740	Boson degeneracy and superfluidity of helium-4
6320L	<i>Phonon interactions with quasi-particles</i>	6750	Fermi fluids; liquid helium-3
6320M	<i>Phonon-defect interactions</i>	6760	Mixed systems; liquid helium 3-4 mixtures
6320P	<i>Localized modes</i>	6765	Spin-polarized hydrogen and helium
6320R	<i>Anharmonic lattice modes</i>	6770	Films
6350	Vibrational states in disordered systems		
6370	Statistical mechanics of lattice vibrations		
6375	Statistical mechanics of displacive phase-transitions		
6390	Other topics in lattice dynamics and crystal statistics		

6780	Solid helium and related quantum crystals	7145L	<i>Charge-density-wave systems</i>
6790	Other topics in quantum fluids and solids (e.g. neutron-star matter)	7145N	<i>Calculations of total electronic binding energy</i>
		7150	<i>Localized single-particle electronic states</i>
		7155	<i>Impurity and defect levels</i>
6800	<b>SURFACES AND INTERFACES; THIN FILMS AND WHISKERS</b>	7155J	<i>Localization in disordered structures</i>
6810	Fluid surfaces and interfaces with fluids	7165	<i>Positron states</i>
6815	Liquid thin films	7170	<i>Level splitting and interactions</i>
6817	Monolayers and Langmuir-Blodgett films	7170C	<i>Crystal and ligand fields</i>
6820	Solid surface structure	7170E	<i>Spin-orbit coupling, Zeeman, Stark and strain splitting</i>
6822	Surface diffusion, segregation and interfacial compound formation	7170G	<i>Exchange interactions</i>
6825	Mechanical and acoustical properties of solid surfaces and interfaces	7170J	<i>Nuclear states and interactions</i>
6830	Dynamics of solid surfaces and interface vibrations	7170M	<i>Other bulk localized states</i>
6840	Surface energy of solids; thermodynamic properties	7190	Other topics in electron states
6842	Surface phase transitions and critical phenomena	7200	<b>ELECTRONIC TRANSPORT IN CONDENSED MATTER</b>
6845	Solid-fluid interface processes	7210	Theory of electronic transport; scattering mechanisms
6848	Solid-solid interfaces	7215	Electronic conduction in metals and alloys
6855	Thin film growth, structure, and epitaxy	7215C	<i>Electrical and thermal conduction in amorphous and liquid metals and alloys</i>
6860	Physical properties of thin films, nonelectronic	7215E	<i>Electrical and thermal conduction in crystalline metals and alloys</i>
6865	Layer structures, intercalation compounds and superlattices: growth, structure, and nonelectronic properties	7215G	<i>Galvanomagnetic and other magnetotransport effects</i>
6870	Whiskers and dendrites: growth, structure, and nonelectronic properties	7215H	<i>Thermomagnetic effects</i>
6890	Other topics in the structure and nonelectronic properties of surfaces and thin films	7215J	<i>Thermoelectric effects</i>
7000	<b>CONDENSED MATTER: ELECTRONIC STRUCTURE, ELECTRICAL, MAGNETIC, AND OPTICAL PROPERTIES</b>	7215L	<i>Relaxation times and mean free paths</i>
7100	<b>ELECTRON STATES</b>	7215N	<i>Collective modes; low-dimensional conductors</i>
7110	General theories and computational techniques	7215Q	<i>Scattering mechanisms and Kondo effect</i>
7120	Electronic density of states determinations	7215R	<i>Quantum localization</i>
7125	Nonlocalized single-particle electronic states	7220	Conductivity phenomena in semiconductors and insulators
7125C	<i>Techniques of band-structure calculation (general theory, applications of group theory, analytic continuation, etc.)</i>	7220D	<i>General theory, scattering mechanisms</i>
7125H	<i>Measurement of Fermi surface parameters</i>	7220F	<i>Low-field transport and mobility; piezoresistance</i>
7125J	<i>Effective mass and g-factors</i>	7220H	<i>High-field and nonlinear effects</i>
7125L	<i>Electron energy states in liquid metals</i>	7220J	<i>Charge carriers: generation, recombination, lifetime, and trapping</i>
7125M	<i>Electron energy states in amorphous and glassy solids</i>	7220M	<i>Galvanomagnetic and other magnetotransport effects</i>
7125P	<i>Band structure of crystalline metals</i>	7220N	<i>Thermomagnetic effects</i>
7125R	<i>Band structure of crystalline elemental semiconductors</i>	7220P	<i>Thermoelectric effects</i>
7125T	<i>Band structure of crystalline semiconductor compounds and insulators</i>	7230	High-frequency effects; plasma effects
7128	Narrow-band systems, heavy-fermion metals; intermediate-valence solids	7240	Photoconduction and photovoltaic effects; photodielectric effects
7130	Metal-insulator transitions	7250	Acoustoelectric effects
7135	Excitons and related phenomena	7255	Magnetoacoustic effects
7136	Polaritons	7260	Mixed conductivity and conductivity transitions
7138	Polarons and electron-phonon interactions	7270	Noise processes and phenomena
7145	Collective effects	7280	Conductivity of specific semiconductors and insulators
7145G	<i>Exchange, correlation, dielectric and magnetic functions, plasmons</i>	7280C	<i>Elemental semiconductors</i>
	<i>Fermi-Thomas model</i>	7280E	<i>III-V and II-VI semiconductors</i>
		7280G	<i>Transition-metal compounds</i>
		7280J	<i>Other crystalline inorganic semiconductors</i>
		7280L	<i>Organic semiconductors</i>
		7280N	<i>Amorphous and glassy semiconductors</i>
		7280P	<i>Liquid semiconductors</i>
7145J		7290	Other topics in electronic transport in condensed matter

7300	ELECTRONIC STRUCTURE AND ELECTRICAL PROPERTIES OF SURFACES, INTERFACES, AND THIN FILMS	7470Q	<i>Laves phase (C15) superconductors</i>
		7470S	<i>Superconducting metastable nonstoichiometric phases</i>
7320	Electronic surface states	7470T	<i>Heavy-fermion superconductors</i>
7325	Surface conductivity and carrier phenomena	7470V	<i>Perovskite phase superconductors</i>
7330	Surface double layers, Schottky barriers, and work functions	7470Y	<i>Other superconducting materials</i>
7335	Mesoscopic systems	7475	Superconducting films
7340	Interfaces	7490	Other topics in superconductivity
7340B	<i>Static electrification</i>	7500	MAGNETIC PROPERTIES AND MATERIALS
7340G	<i>Tunnelling: general</i>	7510	General theory and models of magnetic ordering
7340J	<i>Metal-to-metal contacts</i>	7510D	<i>Crystal-field theory and spin Hamiltonians</i>
7340L	<i>Semiconductor-to-semiconductor contacts, p-n junctions, and heterojunctions</i>	7510H	<i>Ising and other classical spin models</i>
7340M	<i>Semiconductor-electrolyte contacts</i>	7510J	<i>Heisenberg and other quantized localized spin models</i>
7340N	<i>Metal-nonmetal contacts</i>	7510L	<i>Band and itinerant models</i>
7340Q	<i>Metal-insulator-semiconductor structures</i>	7510N	<i>Spin-glass models</i>
7340R	<i>Metal-insulator-metal structures</i>	7520	Diamagnetism and paramagnetism
7340S	<i>Metal-semiconductor-metal structures</i>	7520C	<i>Nonmetals</i>
7340T	<i>Semiconductor-insulator-semiconductor structures</i>	7520E	<i>Metals and alloys</i>
7340V	<i>Semiconductor-metal-semiconductor structures</i>	7520H	<i>Local moment in dilute alloys; Kondo effect, valence fluctuations, heavy fermions</i>
7360	Electronic properties of thin films	7525	Spin arrangements in magnetically ordered materials
7360D	<i>Metallic thin films</i>	7530	Magnetically ordered materials, other intrinsic properties
7360F	<i>Semiconductor films</i>	7530C	<i>Saturation moments and magnetic susceptibility</i>
7360H	<i>Insulating thin films</i>	7530D	<i>Spin waves</i>
7390	Other topics in electrical properties of surfaces, interfaces, and thin films	7530E	<i>Exchange and superexchange interactions</i>
7400	SUPERCONDUCTIVITY	7530F	<i>Spin-density waves</i>
7410	Occurrence, critical temperature	7530G	<i>Anisotropy</i>
7420	Theory	7530H	<i>Magnetic impurity interactions</i>
7420F	<i>BCS theory and its applications</i>	7530K	<i>Magnetic phase boundaries</i>
7430	General properties	7530M	<i>Valence fluctuation, Kondo lattice and heavy fermions</i>
7430C	<i>Magnetization curves, Meissner effect, penetration depth</i>	7530S	<i>Magnetocaloric effect</i>
7430E	<i>Thermodynamic properties; thermal conductivity</i>	7530T	<i>Surface magnetism</i>
7430G	<i>Response to electromagnetic fields, nuclear magnetic resonance, ultrasonic attenuation</i>	7540	Critical-point effects, specific heats, short-range order
7440	Fluctuations and critical effects	7540C	<i>Static properties</i>
7450	Proximity effect, tunnelling phenomena, and Josephson effect	7540G	<i>Dynamic properties</i>
7455	Type-I superconductivity	7540M	<i>Numerical simulation studies</i>
7460	Type-II superconductivity	7550	Studies of specific magnetic materials
7460E	<i>Mixed state, <math>H_c</math>, surface sheath</i>	7550B	<i>Ferromagnetism of Fe and its alloys</i>
7460G	<i>Flux pinning, flux motion, fluxon-defect interactions</i>	7550C	<i>Ferromagnetism of other metals</i>
7460J	<i>Critical currents</i>	7550D	<i>Ferromagnetism of nonmetals</i>
7460M	<i>Material effects on <math>T_c</math>, critical currents</i>	7550E	<i>Antiferromagnetics</i>
7465	Insulator-superconductor transition	7550G	<i>Ferrimagnetics</i>
7470	Superconducting materials	7550K	<i>Amorphous magnetic materials</i>
7470B	<i>Elemental superconductors</i>	7550L	<i>Spin glasses</i>
7470C	<i>A15 compounds and alloys</i>	7550M	<i>Magnetic liquids</i>
7470E	<i>Interstitial compounds and alloys</i>	7550P	<i>Magnetic semiconductors</i>
7470F	<i>Chevrel phase (ternary molybdenum chalcogenide) superconductors</i>	7550R	<i>Magnetism in interface structures</i>
7470H	<i>Magnetic superconductors</i>	7560	Domain effects, magnetization curves, and hysteresis
7470J	<i>Superconducting layer structures and intercalation compounds</i>	7560C	<i>Domain walls and domain structure</i>
7470K	<i>Organic superconductors</i>	7560E	<i>Magnetization curves, hysteresis, Barkhausen and related effects</i>
7470M	<i>Amorphous, highly disordered, and granular superconductors</i>	7560G	<i>High coercivity materials</i>
		7560J	<i>Fine-particle systems</i>
		7560L	<i>Magnetic aftereffects</i>

7560N	<i>Magnetic annealing and temperature-hysteresis effects</i>	7820	PARTICLES AND RADIATION
7570	Magnetic films and multilayers	7820B	Optical properties of bulk materials
7570K	<i>Domain structure (magnetic bubbles)</i>	7820D	<i>General theory (for pure homogeneous materials)</i>
7580	Magnetomechanical and magnetoelectric effects, magnetostriction	7820E	<i>Optical constants and parameters</i>
7590	Other topics in magnetic properties and materials	7820F	<i>Optical rotatory power</i>
		7820H	<i>Birefringence</i>
		7820J	<i>Piezo-, elasto- and acousto-optical effects</i>
7600	MAGNETIC RESONANCES AND RELAXATION IN CONDENSED MATTER; MÖSSBAUER EFFECT	7820L	<i>Electro-optical effects</i>
7620	General theory of resonances and relaxation	7820N	<i>Magneto-optical effects</i>
7630	Electron paramagnetic resonance and relaxation	7820W	<i>Thermo-optical effects</i>
7630D	<i>Ions and impurities: general</i>	7830	<i>Other optical properties of bulk materials</i>
7630F	<i>Iron group (3d) ions and impurities (Ti-Cu)</i>	7835	Infrared and Raman spectra and scattering
7630H	<i>Platinum and palladium group (4d and 5d) ions and impurities (Zr-Ag and Hf-Au)</i>	7840	Brillouin and Rayleigh scattering
7630K	<i>Rare-earth ions and impurities</i>	7845	Visible and ultraviolet spectra
7630L	<i>Other ions and impurities</i>	7847	Stimulated emission
7630M	<i>Colour centres and other defects</i>		Time-resolved optical spectroscopies and other ultrafast optical measurements in condensed matter
7630P	<i>Conduction electrons</i>	7850	Impurity and defect absorption in solids
7630R	<i>Free radicals</i>	7855	Photoluminescence
7640	Diamagnetic and cyclotron resonances	7860	Other luminescence spectra and radiative recombination
7650	Ferromagnetic, antiferromagnetic, and ferrimagnetic resonances; spin wave resonance	7860F	<i>Electroluminescence</i>
7660	Nuclear magnetic resonance and relaxation	7860H	<i>Cathodoluminescence, ionoluminescence</i>
7660C	<i>Chemical and Knight shifts</i>	7860K	<i>Thermoluminescence</i>
7660E	<i>Relaxation effects</i>	7860M	<i>Sonoluminescence, triboluminescence</i>
7660G	<i>Quadrupole resonance</i>	7860P	<i>Chemiluminescence</i>
7660L	<i>Spin echoes</i>	7865	Optical properties of thin films
7670	Magnetic double resonances and cross effects	7870	Other interactions of matter with particles and radiation
7670D	<i>Electron-nuclear double resonance (ENDOR)</i>	7870B	<i>Positron annihilation</i>
7670E	<i>Dynamical nuclear polarization</i>	7870C	<i>X-ray scattering</i>
7670F	<i>Double nuclear magnetic resonance (DNMR)</i>	7870D	<i>X-ray absorption and absorption edges</i>
7670H	<i>Optical double magnetic resonance (ODMR)</i>	7870E	<i>X-ray emission threshold and fluorescence</i>
7670K	<i>Electron double resonance (ELDOR)</i>	7870F	<i>Channelling radiation</i>
7675	Muon spin rotation and relaxation	7870G	<i>Microwave and radiofrequency interactions</i>
7680	Mössbauer effect; other gamma-ray spectroscopy	7890	Other topics in optical properties of condensed matter and other interactions of matter with particles and radiation
7690	Other topics in magnetic resonances and relaxation	7900	ELECTRON AND ION EMISSION BY LIQUIDS AND SOLIDS; IMPACT PHENOMENA
7700	DIELECTRIC PROPERTIES AND MATERIALS	7920	Impact phenomena
7720	Permittivity	7920D	<i>Laser-light impact phenomena</i>
7730	Polarization and depolarization effects	7920F	<i>Electron impact: Auger emission</i>
7740	Dielectric loss and relaxation	7920H	<i>Electron impact: secondary emission</i>
7750	Dielectric breakdown and space-charge effects	7920K	<i>Other electron impact phenomena</i>
7755	Dielectric thin films	7920N	<i>Atom, molecule, and ion impact</i>
7760	Piezoelectricity and electrostriction	7920R	<i>Atomic and molecular beam interactions</i>
7770	Pyroelectric and electrocaloric effects	7940	Thermionic emission
7780	Ferroelectricity and antiferroelectricity	7960	Photoemission and photoelectron spectra
7780B	<i>Transitions and Curie point</i>	7970	Field emission and field ionization
7780D	<i>Domain structure and effects; hysteresis</i>	7975	Exoelectron emission
7785	Electrical resonances	7980	Resonance tunnelling
7790	Other topics in dielectric properties and materials	7990	Other topics in emission and impact phenomena in condensed matter
7800	OPTICAL PROPERTIES AND CONDENSED MATTER SPECTROSCOPY AND OTHER INTERACTIONS OF MATTER WITH	8000	CROSS-DISCIPLINARY PHYSICS AND RELATED AREAS OF SCIENCE AND TECHNOLOGY

8100	MATERIALS SCIENCE	8200	PHYSICAL CHEMISTRY
8110	Methods of crystal growth and purification	8220	Chemical kinetics
8110B	<i>Growth from vapour</i>	8220K	<i>Potential energy surfaces for chemical reactions</i>
8110D	<i>Growth from solutions</i>	8220M	<i>Nonequilibrium kinetics</i>
8110F	<i>Growth from melts</i>	8220R	<i>Energy distribution and transfer, relaxation</i>
8110H	<i>Zone melting and zone refining</i>	8230	Specific chemical reactions; reaction mechanisms
8110J	<i>Growth from solid phases</i>	8235	Polymer reactions and polymerization
8115	Methods of thin film deposition	8240	Chemical kinetics and reactions: special regimes
8115C	<i>Deposition by sputtering</i>	8240D	<i>Atomic and molecular beam reactions</i>
8115G	<i>Vacuum deposition</i>	8240T	<i>Chemiluminescence and chemical laser kinetics</i>
8115H	<i>Chemical vapour deposition</i>	8245	Electrochemistry and electrophoresis
8115J	<i>Ion plating and other vapour deposition</i>	8250	Photochemistry and radiation chemistry
8115L	<i>Deposition from liquid phases (melts and solutions)</i>	8250E	<i>Photodissociation, photoionization as studied by luminescence and radiationless transitions</i>
8115N	<i>Growth from solid phases</i>	8250F	<i>Photolysis and photodissociation by IR, UV, and visible radiation</i>
8120	Other methods of preparation of materials	8250G	<i>Radiolysis and dissociation by X-rays and gamma-rays</i>
8120E	<i>Powder techniques, compaction and sintering</i>	8255	Radiochemistry
8120G	<i>Specific metals and alloys (compacts, pseudoalloys)</i>	8260	Chemical thermodynamics
8120J	<i>Dispersion-, fibre-, and platelet-reinforced metal-based composites</i>	8265	Surface processes
8120L	<i>Ceramics and refractories</i>	8270	Disperse systems
8120N	<i>Cements, ceramics and refractory composites</i>	8280	Chemical analysis and treated physical methods of analysis
8120P	<i>Glasses</i>	8280K	<i>Energy conversion spectroscopic methods of analysis</i>
8120Q	<i>Glass-based composites</i>	8290	Other topics in physical chemistry
8120S	<i>Polymers and plastics</i>	8600	ENERGY RESEARCH AND ENVIRONMENTAL SCIENCE
8120T	<i>Reinforced polymers and polymer-based composites</i>	8610	Energy resources and their utilization
8130	<i>Phase diagrams and microstructures developed by solidification and solid-solid phase transformations</i>	8610B	<i>Fossil and other fuels</i>
8130B	<i>Phase diagrams of metals and alloys</i>	8610D	<i>Wind energy</i>
8130D	<i>Phase diagrams of other materials</i>	8610F	<i>Tidal and flow energy</i>
8130F	<i>Solidification</i>	8610H	<i>Geothermal energy</i>
8130H	<i>Constant-composition solid-solid phase transformations: polymorphic, massive, and order-disorder</i>	8610K	<i>Solar energy</i>
8130K	<i>Martensitic transformations</i>	8610N	<i>Nuclear energy</i>
8130M	<i>Precipitation</i>	8610Z	<i>Other topics</i>
8140	Treatment of materials and its effects on microstructures and properties	8630	Energy conversion
8140C	<i>Solid solution hardening, precipitation hardening, dispersion hardening</i>	8630D	<i>Electrochemical conversion: general</i>
8140E	<i>Cold working, work hardening; post-deformation annealing, recovery and recrystallization; textures</i>	8630E	<i>Primary cells</i>
8140G	<i>Other heat and thermomechanical treatments</i>	8630F	<i>Secondary cells</i>
8140J	<i>Elasticity and anelasticity</i>	8630G	<i>Fuel cells</i>
8140L	<i>Deformation, plasticity and creep</i>	8630J	<i>Photoelectric conversion; solar cells and arrays</i>
8140N	<i>Fatigue, embrittlement, and fracture</i>	8630K	<i>Photoelectrochemical conversion</i>
8140P	<i>Friction, lubrication, and wear</i>	8630L	<i>Electrogasdynamic and magnetohydrodynamic conversion</i>
8140R	<i>Electrical and magnetic properties (related to treatment conditions)</i>	8630M	<i>Thermoelectric conversion</i>
8140T	<i>Optical properties (related to treatment conditions)</i>	8630N	<i>Thermionic conversion</i>
8160	Corrosion, oxidation, etching, and other surface treatments	8630P	<i>Photosynthesis</i>
8160B	<i>Metals and alloys</i>	8630Q	<i>Chemical energy conversion</i>
8160C	<i>Semiconductors</i>	8630R	<i>Thermal energy conversion (heat engines and heat pumps)</i>
8170	Materials testing	8630S	<i>Photothermal conversion</i>
8170C	<i>Nondestructive testing</i>	8630Z	<i>Other topics</i>
8180	Reduced gravity experiments	8640	Energy storage (secondary energy)
8190	Other topics in materials science	8640C	<i>Storage in mechanical energy</i>
		8640F	<i>Storage in thermal energy</i>
		8640H	<i>Storage in chemical energy</i>
		8640K	<i>Hydrogen storage and technology</i>

8640Z	<i>Other topics</i>	8760P	<i>Radiation protection</i>
8660	Requirement for energy: ecological aspects	8760R	<i>Radioactive pollution</i>
8670	Environmental science	8765	Aerospace biophysics and medical physics (effects of accelerations, weightlessness and environment)
8670C	<i>Soil and rock</i>	8770	Biomedical engineering
8670E	<i>Water</i>	8770E	<i>Diagnostic methods and instrumentation</i>
8670G	<i>Atmosphere</i>	8770G	<i>Patient care and treatment</i>
8670J	<i>Noise</i>	8770J	<i>Prosthetics and other practical applications</i>
8670L	<i>Measurement techniques and instrumentation</i>	8780	Biophysical instrumentation and techniques
8670Z	<i>Other topics</i>	8790	Other topics in biophysics, medical physics, and biomedical engineering
8690	Other topics in energy research and environmental science		
8700	<b>BIOPHYSICS, MEDICAL PHYSICS, AND BIOMEDICAL ENGINEERING</b>	9000	<b>GEOPHYSICS, ASTRONOMY AND ASTROPHYSICS</b>
8710	General, theoretical, and mathematical biophysics	9100	<b>SOLID EARTH PHYSICS</b>
8715	Molecular biophysics	9110	Geodesy and gravity
8715B	<i>Structure, configuration, conformation, and active sites at the biomolecular level</i>	9125	Geomagnetism and geoelectricity
8715M	<i>Interactions with radiations at the biomolecular level</i>	9130	Seismology
8716	Biothermics	9135	Earth interior
8720	Membrane biophysics	9140	Volcanology
8725	Cellular biophysics	9145	Tectonics
8725D	<i>Biological transport; cellular and subcellular transmembrane physics</i>	9150	Marine geology and geophysics
8728	Bioelectricity	9160	Physical properties of rocks, minerals and soil
8730	Biophysics of neurophysiological processes	9165	Geophysical aspects of geology and mineralogy
8730C	<i>Electrical activity</i>	9190	Other topics in solid Earth physics
8732	Physiological optics, vision	9200	<b>HYDROSPHERIC AND LOWER ATMOSPHERIC PHYSICS</b>
8732C	<i>Anatomy and optics of the eye</i>	9210	Physics of the oceans
8732E	<i>Physiology of the eye; nerve structure and function</i>	9220	Interdisciplinary aspects of oceanography
8732L	<i>Light detection; adaptation and discrimination</i>	9240	Hydrology and glaciology
8732N	<i>Colour detection; adaptation and discrimination</i>	9260	Lower atmosphere
8732Q	<i>Scales for light and colour detection</i>	9260S	<i>Climatology</i>
8732S	<i>Psychophysics of vision, visual perception, binocular vision</i>	9265	Atmospheric optics
8734	Audition	9290	Other topics in hydrospheric and atmospheric physics
8736	Speech and biocommunications	9300	<b>GEOPHYSICAL OBSERVATIONS, INSTRUMENTATION, AND TECHNIQUES</b>
8738	Mechano- and chemio-ceptions	9330	Information related to geographical regions
8740	Biomagnetism	9355	Research organizations and programmes
8745	Biomechanics, biorheology, biological fluid dynamics	9365	Data acquisition, processing and storage
8750	Biological effects of radiations	9385	Instrumentation and techniques for geophysical, hydrospheric and lower atmosphere research
8750B	<i>Interactions of biosystems with radiations</i>	9400	<b>AERONOMY, SPACE PHYSICS, AND COSMIC RAYS</b>
8750C	<i>Bioacoustics (sonic and ultrasonic effects on living matter)</i>	9410	Neutral upper atmosphere
8750E	<i>Bio-optics (effects of microwaves, light, laser and other electromagnetic waves)</i>	9410Q	<i>Airglow, nightglow, and geocorona</i>
8750G	<i>Ionizing radiations (UV, X-ray, gamma-ray; particle radiation effects)</i>	9410S	<i>Aurora</i>
8760	Medical and biomedical uses of fields, radiations, and radioactivity	9420	Ionosphere
8760B	<i>Sonic and ultrasonic radiation</i>	9430	Magnetosphere
8760D	<i>Electric and magnetic fields (DC and pulsed)</i>	9440	Cosmic rays
8760G	<i>Laser beams, microwaves, and other electromagnetic waves</i>	9440C	<i>Origin and propagation outside the solar system</i>
8760J	<i>Corpuscular radiation and radioisotopes</i>	9440E	<i>Interplanetary propagation and effects</i>
8760L	<i>Preparation of radioactive materials for medical and biomedical uses</i>	9440H	<i>Energetic solar particles and photons</i>
8760M	<i>Radiation dosimetry</i>	9440K	<i>Solar modulation</i>
		9440L	<i>Composition and energy spectra</i>
		9440N	<i>Showers and bursts</i>
		9440R	<i>High-energy interactions, energy &gt; 10 GeV</i>

9440T	<i>Muons and neutrinos</i>	9630R	<i>Pluto and satellite</i>
9440V	<i>Cosmic ray effects in meteorites and terrestrial, lunar, and planetary matter</i>	9630T	<i>Other planets</i>
9460	<i>Interplanetary space</i>	9630W	<i>Planetary rings</i>
9480	Instrumentation and techniques for aeronomy, space physics, and cosmic rays	9635	Planetary and satellite characteristics and properties
9490	Other topics in aeronomy, space physics, and cosmic rays	9650	Other objects in the planetary system
9500	<b>FUNDAMENTAL ASTRONOMY AND ASTROPHYSICS, INSTRUMENTATION AND TECHNIQUES AND ASTRONOMICAL OBSERVATIONS</b>	9650D	<i>Interplanetary dust</i>
9510	Fundamental astronomy	9650G	<i>Comets</i>
9510C	<i>Celestial mechanics</i>	9650K	<i>Meteors, showers and meteoroids</i>
9530	Fundamental aspects of astrophysics	9650M	<i>Meteorites, micrometeorites</i>
9545	Observatories	9660	Solar physics
9555	Astronomical and space-research instrumentation	9690	Other topics on the solar system
9575	Astronomical techniques	9700	<b>STARS</b>
9580	Astronomical observations	9710	Stellar characteristics
9580D	<i>Radio, radar, and microwave</i>	9720	Normal stars (by class): general or individual
9580E	<i>Sub-millimetre</i>	9730	Variable and peculiar stars
9580G	<i>Infrared</i>	9760	Late stages of stellar evolution
9580J	<i>Photographic region</i>	9760B	<i>Supernovae</i>
9580M	<i>Space ultraviolet</i>	9760G	<i>Pulsars</i>
9580N	<i>X-ray</i>	9760J	<i>Neutron stars</i>
9580Q	<i>Gamma-ray and cosmic ray</i>	9760L	<i>Black holes</i>
9580S	<i>Other</i>	9780	Binary and multiple stars
9585	Catalogues, atlases, and finding charts	9790	Other topics in stellar astronomy
9590	Other topics in astronomy and astrophysics	9800	<b>STELLAR SYSTEMS; GALACTIC AND EXTRAGALACTIC OBJECTS AND SYSTEMS; UNIVERSE</b>
9600	<b>SOLAR SYSTEM</b>	9810	Stellar dynamics
9610	General, solar nebula, and cosmogony	9820	Stellar clusters and associations
9620	Moon	9840	Interstellar medium; nebulae
9630	Planets and satellites	9850	The Galaxy, extragalactic objects and systems
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